

In the Claims:

Please amend the claims as follows:

1-17 (cancelled)

18. (currently amended) A method for processing flue gas scrubber material flows, the method comprising: in which method

scrubbing in a flue gas scrubber flue gas ~~is scrubbed~~ with a washing fluid containing calcium-based absorbent to absorb sulphur oxides from the flue gas, ~~gases and the~~

directing a formed gypsum slurry ~~is directed~~ from the flue gas scrubber to ~~the~~ a separator, in whose separation point the gypsum is separated from the washing fluid, and from which the gypsum and washing fluid are ~~take~~ taken out as separate material flows, and ~~wherein from the flue gas scrubber~~

directing the washing fluid ~~is directed~~ from the flue gas scrubber to a tank located before the separating point of the separator or after the separation point of the separator, in which tank foam is separated from the washing fluid as its own phase and taken out from the tank.

19. (currently amended) The method according to claim 18, wherein the foam is taken out from ~~the~~ a fluid surface of the tank.

20. (previously presented) The method according to claim 19, wherein the foam is taken out as overflow.

21. (currently amended) The method according to claim 19, wherein in the tank the washing fluid is directed away from the foam towards its own outlet by means of a vertically extending baffle structures, which ~~prevent the~~ prevents direct horizontal flow of water.

22. (previously presented) The method according to the claim 18, wherein the foam taken out of the tank is combined with the gypsum material flow.

23. (previously presented) The method according to the claim 18, wherein the washing fluid is recycled from the tank back to the flue gas scrubber.

24. (currently amended) The method according to claim 23, wherein the washing fluid is directed from the tank back to the flue gas scrubber via at least one ~~new~~ additional foam removal ~~phase~~ step.

25. (previously presented) The method according to the claim 18, wherein gypsum is separated from the washing fluid with a hydrocyclone, whose excess is directed to the tank, wherein foam is separated from the fluid.

26. (currently amended) An apparatus for processing flue gas scrubber material flows, the apparatus comprising: in which apparatus there is

a flue gas scrubber using a washing fluid comprising a calcium-based absorbent,
an outlet line for directing the gypsum-containing washing fluid out of the scrubber, as

~~well as~~

a separator having a separation point for separating the gypsum and the washing fluid,
and wherein

a tank arranged in the a direction of flow of the washing fluid ~~there is a tank~~ before the a
separation point of the separator ~~and/or~~ or after the separation point of the separator, in which
there are means for separating foam from the upper part of the tank and an outlet ~~or an outlet~~
~~point~~ for removing clean washing fluid from foam.

27. (currently amended) The apparatus according to claim 26, wherein the means for
separating foam ~~comprise~~ comprises an overflow for directing the foam on the a fluid surface of
the tank away.

28. (currently amended) The apparatus according to claim 27, ~~wherein~~ further
comprising:

one or more vertically extending baffle structures arranged in the tank ~~there is one or~~
~~more vertically extending baffle structures~~ between the overflow and the outlet ~~or the outlet~~
~~point, such as a baffle plate or the like.~~

29. (currently amended) The apparatus according to claim 28, ~~wherein the~~ further
comprising:

a first baffle structure is located in the tank between said overflow and tank outlet ~~or~~
~~outlet point~~, and is directed from the a bottom of the tank upwards defining the fluid surface
level in the tank.

30. (currently amended) The apparatus according to claim 29, ~~wherein the~~ further comprising:

a second baffle structure is located in the tank between the first baffle structure and the overflow, and extending ~~extends~~ above the first baffle structure, and extends at the lower end to a distance from the bottom of the tank, thus leaving a flow outlet free for the fluid to flow towards the tank outlet ~~or the outlet point~~.

31. (currently amended) The apparatus according to claim 26, wherein the means for foam removal in the tank before the separating point of the separator ~~comprise~~ comprises a spray device ~~or the like~~ for directing the foam away from ~~the~~ a tank fluid surface.

32. (currently amended) The apparatus according to the claim 26, ~~wherein~~ further comprising:

another tank arranged after the tank following the separating point of the separator, the other tank comprising ~~there is another tank having~~ means for directing the foam away from the upper part of the tank and an outlet for removing clean washing fluid from the foam.

33. (currently amended) The apparatus according to the claim 26, ~~wherein~~ further comprising:

an overflow pipe, ~~whose~~ connected to the scrubber and comprising a water seal is located outside the scrubber below the overflow point, ~~has been connected to the scrubber~~.

34. (previously presented) The apparatus according to claim 33, wherein in the water seal there is a water connection, through which water can be supplied to the water seal.

35. (new) The apparatus according to claim 28, wherein in the one or more baffle structures each comprise a baffle plate.